Serial No.: 10/025,947

Filed: December 26, 2001

Page : 3 of 17

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A compound of formula (I):

$$A - Y^1 - L - Y^2 - C - X^2 - H$$
 (I)

wherein

A is a cyclic moiety selected from the group consisting of C_{3-14} cycloalkyl, 3-14 membered heterocycloalkyl, C_{4-14} cycloalkenyl, 3-14 membered heterocycloalkenyl, aryl, heteroaryl; the cyclic moiety being optionally substituted with 1-3 substituents, each of which is independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, and alkylsulfonyl;

each of X¹ and X², independently, is O or S;

each of Y^1 and Y^2 , independently, is -CH₂-, -O-, -S-, -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)N(R^b)-, -O-C(O)-O-, or a bond; each of R^a and R^b , independently being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

L is a straight C_{3-12} hydrocarbon chain optionally containing at least one double bond, at least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, hydroxyl, halo, amino, nitro, cyano, C_{3-5} cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C_{1-4} alkylcarbonyloxy, C_{1-4} alkylcarbonyl, or formyl; and further being optionally interrupted by -O-, -N(R°)-, -N(R°)-C(O)-O-, -O-C(O)-(R°)-, -N(R°)-C(O)-N(R^d)-, or -O-C(O)-O-; each of R° and R^d, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; provided that when L contains two or more double bonds,

Serial No.: 10/025,947

Filed: December 26, 2001

Page : 4 of 17

the double bonds are not adjacent to each other; that when L contains three double bonds, said hydrocarbon chain is further substituted with $C_{2.4}$ alkenyl, $C_{2.4}$ alkynyl, $C_{1.4}$ alkoxy, hydroxyl, halo, amino, nitro, cyano, $C_{3.5}$ cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, $C_{1.4}$ alkylcarbonyloxy, $C_{1.4}$ alkylcarbonyl, or formyl; and further provided that when L contains zero double bonds, one double bond, or two conjugated double bonds and A is substituted phenyl or unsubstituted aryl, Y^1 is not a bond or CH_2 and Y^2 is not a bond or CH_2 ;

or a salt thereof.

- 2. (Original) The compound of claim 1, wherein X¹ is O.
- 3. (Original) The compound of claim 1, wherein X^2 is O.
- 4. (Original) The compound of claim 1, where each of X^1 and X^2 is O.
- 5. (Original) The compound of claim 1, wherein each of Y^1 and Y^2 , independently, is -CH₂, -O-, -N(\mathbb{R}^a)-, or a bond.

6. (Canceled)

- 7. (**Previously Presented**) The compound of claim 1, wherein L is an unsaturated C_{4-8} hydrocarbon containing at least one double bond and no triple bond, said unsaturated hydrocarbon chain being optionally substituted with C_{1-2} alkoxy, hydroxyl, -NH₂, -NH(C_{1-2} alkyl), or -N(C_{1-2} alkyl)₂, or -N(C_{1-2} alkyl)₂.
- 8. (Original) The compound of claim 7, wherein the double bond is in trans configuration.

9-11. (Canceled)

Serial No.: 10/025,947

Filed: December 26, 2001

Page : 5 of 17

12. (Original) The compound of claim 1, wherein A is phenyl, naphthyl, indanyl, or tetrahydronaphthyl.

13. (Previously Presented) The compound of claim 1, wherein A is phenyl optionally substituted with 1-3 substituents each of which is independently selected from the group consisting of alkyl, alkenyl, hydroxyl, hydroxylalkyl, halo, haloalkyl, and amino.

14-15. (Canceled)

- 16. (**Previously Presented**) The compound of claim 13, wherein L is an unsaturated C_{4-8} hydrocarbon chain containing only double bonds in trans configuration, said unsaturated hydrocarbon chain being optionally substituted with C_{1-2} alkoxy, hydroxyl, -NH₂, -NH(C_{1-2} alkyl), or -N(C_{1-2} alkyl)₂.
- 17. (**Original**) The compound of claim 16, wherein X^1 is O; X^2 is O; and each of Y^1 and Y^2 , independently, is -CH₂-, -O-, -N(\mathbb{R}^a)-, or a bond.

18-21. (Canceled)

22. (Previously Presented) A compound of formula (I):

$$A - Y^1 - L - Y^2 - C - X^2 - H$$
 (I)

wherein

A is a cyclic moiety selected from the group consisting of aryl and heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, hydroxylalkyl, or amino; each of X^1 and X^2 , independently, is O or S;

Serial No.: 10/025,947

Filed: December 26, 2001

Page : 6 of 17

each of Y^1 and Y^2 , independently, is -CH₂-, -O-, -S-, -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-C(O)-O-, or a bond; each of R^a and R^b , independently, being hydrogen, alkyl, hydroxylalkyl, or haloalkyl;

L is a straight C_{3-12} hydrocarbon chain optionally containing at least one double bond, at least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, or amino, and further optionally interrupted by -O- or -N(R^c)-, where R^c is hydrogen, alkyl, hydroxylalky, or haloalkyl; provided that when L contains two or more double bonds, the double bonds are not adjacent to each other; that when L contains three double bonds, said hydrocarbon chain is substituted with C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, or amino; and further provided that when L contains zero double bonds, one double bond, or two conjugated double bonds and A is C_{1-4} alkyl phenyl, C_{1-4} alkoxy phenyl, or unsubstituted aryl, Y^1 is not a bond or CH_2 , and Y^2 is not a bond or CH_2 ;

or a salt thereof.

23-24. (Canceled)

- 25. (Previously Presented) The compound of claim 22, wherein L is an unsaturated C_{4-8} hydrocarbon chain containing only double bonds in trans configuration, said unsaturated hydrocarbon chain being optionally substituted with C_{1-2} alkoxy, hydroxyl, -NH₂, -NH(C_{1-2} alkyl), or -N(C_{1-2} alkyl)₂.
- 26. (Original) The compound of claim 25, where in X^1 is O; X^2 is O; and each of Y^1 and Y^2 , independently, is -CH₂-, -O-, -N(\mathbb{R}^a)-, or a bond.

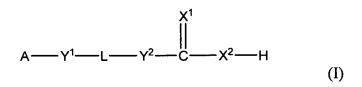
27-79. (Canceled)

80. (Currently Amended) A pharmaceutical composition, comprising compound of formula (I):

Serial No.: 10/025,947

Filed: December 26, 2001

Page : 7 of 17



wherein

heterocycloalkyl, C_{4-14} cycloalkenyl, 3-14 membered heterocycloalkenyl, aryl, and heteroaryl; the cyclic moiety being optionally substituted with 1-3 substituents, each of which is independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, and alkylsulfonyl; each of X^1 and X^2 , independently, is O or S; each of Y^1 and Y^2 , independently, is $-CH_2$ -, -O-, -S-, $-N(R^a)$ -, $-N(R^a)$ --C(O)-O-, -O--C(O)- $-N(R^a)$ -, $-N(R^a)$ -, $-N(R^a)$ -, $-N(R^a)$ -, $-N(R^a)$ -, and $-N(R^a)$ -, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; L is a straight $-C_3$ -12 hydrocarbon chain containing at least one double bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with $-C_3$ -14 alkynyl, $-C_4$ -14 alkoxy, hydroxyl, halo, amino, nitro, cyano, $-C_3$ -5 cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, $-C_4$ -14 alkylcarbonyloxy,

C₁₋₄ alkyloxycarbonyl, C₁₋₄ alkylcarbonyl, or formyl; and further being optionally interrupted by -O-, -N(R^c)-, -N(R^c)-C(O)-O-, -O-C(O)-N(R^c)-, -N(R^c)-C(O)-N(R^d)-, or -O-C(O)-O-; each of R^c

and R^d, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl,

A is a cyclic moiety selected from the group consisting of C_{3-14} cycloalkyl, 3-14 membered

or a salt thereof; and a pharmaceutically acceptable carrier.

hydroxyl, or haloalkyl;

- 81. (Previously Presented) The pharmaceutical composition of claim 80, wherein X^1 is O.
- 82. (Previously Presented) The pharmaceutical composition of claim 80, wherein X^2 is O.

Applicant: Hsuan-Yin Lan-Hargest et al.

Serial No.: 10/025,947

Filed: December 26, 2001

Page : 8 of 17

83. (Previously Presented) The pharmaceutical composition of claim 80, where each of X^1 and X^2 is O.

Attorney's Docket No.: 15128.0003 C1

- 84. (Previously Presented) The pharmaceutical composition of claim 80, wherein each of Y^1 and Y^2 , independently, is -CH₂, -O-, -N(R^a)-, or a bond.
- 85. (Currently Amended) The pharmaceutical composition of claim 80, wherein L is an unsaturated C_{4-8} C_{5-8} hydrocarbon chain containing at least one double bond and no triple bond, said unsaturated hydrocarbon chain being optionally substituted with C_{1-2} alkoxy, hydroxyl, -NH₂, -NH(C_{1-2} alkyl), or -N(C_{1-2} alkyl)₂, or -N(C_{1-2} alkyl)₂.
- 86. (Previously Presented) The pharmaceutical composition of claim 85, wherein the double bond is in trans configuration.
- 87. (Previously Presented) The pharmaceutical composition of claim 80 wherein A is phenyl, naphthyl, indanyl, or tetrahydronaphthyl.
- 88. (Previously Presented) The pharmaceutical composition of claim 80, wherein A is phenyl optionally substituted with 1-3 substituents, each of which is independently selected from the group consisting of alkyl, alkenyl, hydroxyl, hydroxylalkyl, halo, haloalkyl and amino.
- 89. (Currently Amended) The pharmaceutical composition of claim 80, wherein L is an unsaturated C_{4-8} C_{5-8} hydrocarbon chain containing only double bonds in trans configuration, said unsaturated hydrocarbon chain being optionally substituted with C_{1-2} alkoxy, hydroxyl, -NH₂, -NH(C_{1-2} alkyl), or -N(C_{1-2} alkyl)₂.
- 90. (Previously Presented) The pharmaceutical composition of claim 89, wherein X^{1} is O; X^{2} is

Serial No.: 10/025,947

Filed: December 26, 2001

Page : 9 of 17

O; and each of Y^1 and Y^2 , independently, is $-CH_2$ -, -O-, $-N(R^a)$ -, or a bond.

91. (Currently Amended) A compound of formula (I):

$$A - Y^1 - L - Y^2 - C - X^2 - H$$
 (I)

wherein

wherein

A is a cyclic moiety selected from the group consisting of C_{3-14} cycloalkyl, 3-14 membered heterocycloalkyl, C_{4-14} cycloalkenyl, 3-14 membered heterocycloalkenyl, aryl, and heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl;

each of X^1 and X^2 , independently, is O or S;

$$Y^{1}$$
 is -CH₂-, -S-, -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, N(R^a)-C(O)-N(R^b)-,

-O-C(O)-O-, or a bond; each of R^a and R^b, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

$$Y^{2}$$
 is $-CH_{2}$ -, $-O$ -, $-S$ -, $-N(R^{a})$ -, $-N(R^{a})$ - $C(O)$ - O -, $-O$ - $C(O)$ - $N(R^{a})$ -, $-N(R^{a})$ - $C(O)$ - $N(R^{b})$ -,

-O-C(O)-O-, or a bond;

L is a straight C_{3-6} hydrocarbon chain containing at least one double bond, at least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being substituted with C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, halo, amino, nitro, cyano, C_{3-5} cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C_{1-4} alkylcarbonyloxy, C_{1-4} alkylcarbonyl, or formyl; and further being optionally interrupted by -O-, -N(R^c)-, -N(R^c)-, -N(R^c)-C(O)-O-, -O-C(O)-N(R^c)-, -N(R^c)-C(O)-N(R^d)-, or -O-C(O)-O-; each of R^c and R^d,

Serial No.: 10/025,947

Filed: December 26, 2001

Page : 10 of 17

independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

or a salt thereof.

- 92. (Previously Presented) The compound of claim 91, wherein X^1 is O.
- 93. (Previously Presented) The compound of claim 91, wherein X^2 is O.
- 94. (Previously Presented) The compound of claim 91, wherein each of X^1 and X^2 is O.
- 95. (Canceled)
- 96. (Currently Amended) The compound of claim 91, wherein L is an unsaturated C_{4^-6} hydrocarbon chain containing at least one double bond and no triple bond, said unsaturated hydrocarbon chain being substituted with C_{1^-2} alkyl, C_{1^-2} alkoxy, hydroxyl, -NH₂, -NH($C_{1,2}$ alkyl), -N($C_{1,2}$ alkyl)₂, -N($C_{1,2}$ alkyl)₂, halo, or monocyclic aryl.
- 97. (Previously presented) The compound of claim 96, wherein said double bond is in trans configuration.
- 98. (Canceled)
- 99. (Previously presented) The compound of claim 91, wherein A is phenyl optionally substituted with alkyl, alkenyl, hydroxyl, hydroxylalkyl, halo, haloalkyl, or amino.
- 100. (Currently Amended) The compound of claim 91, wherein L is an unsaturated C_{4-6} C_{5-6} hydrocarbon chain containing double bonds only in trans configuration, said unsaturated hydrocarbon chain being substituted with C_{1-2} alkoxy, hydroxyl, -NH₂, -NH(C_{1-2} alkyl), -N(C_{1-2} alkyl)₂, halo, or monocyclic aryl.

Serial No.: 10/025,947

Filed: December 26, 2001

Page : 11 of 17

101. (Previously Presented) The compound of claim 100, wherein X^1 is O; X^2 is O; and each of Y^1 and Y^2 , independently, is $-CH_2$ -, $-N(R^a)$ -, or a bond.

102. (Currently Amended) A compound of formula (I):

$$A - Y^1 - L - Y^2 - C - X^2 - H$$
 (I)

wherein

A is a cyclic moiety selected from the group consisting of $C_{3^{\circ}14}$ cycloalkyl, 3-14 membered heterocycloalkyl, $C_{4^{\circ}14}$ cycloalkenyl, 3-14 membered heterocycloalkenyl, aryl, a heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl;

each of X^1 and X^2 , independently, is O or S;

each of Y^1 and Y^2 , independently, is $-CH_2$ -, -O-, -S-, $-N(R^a)$ -, $-N(R^a)$ -C(O)-O-, -O-C(O)- $N(R^a)$ -, $-N(R^a)$ -C(O)- $N(R^b)$ -, -O-C(O)-O-, or a bond; each of R^a and R^b , independently being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

L is a straight C_{3-7} hydrocarbon chain optionally containing at least one double bond, least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, hydroxyl, halo, amino, nitro, cyano, C_{3-5} cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C_{1-4} alkylcarbonyloxy, C_{1-4} alkylcarbonyl, or formyl; and further being optionally interrupted by -O-, -N(R^c)-, -N(R^c)-C(O)-O-, -O-C(O)-N(R^c)-, - or -O-C(O)-O-; each of R^c and R^d, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; provided that when L contains two or more double bonds, the double bonds are not

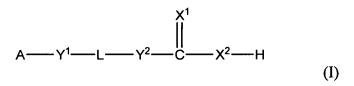
Serial No.: 10/025,947

Filed: December 26, 2001

Page : 12 of 17

adjacent to each other; that when L contains three double bonds, said hydrocarbon chain is further substituted with C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, hydroxyl, halo, amino, nitro, cyano, C_{3-5} cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C_{1-4} alkylcarbonyloxy, C_{1-4} alkylcarbonyl, or formyl; and further provided that when L contains zero double bonds, one double bond, or two conjugated double bonds and A is substituted phenyl or unsubstituted aryl, Y^1 is not a bond or CH_2 , and Y^2 is not a bond or CH_2 ; or a salt thereof.

103. (Currently Amended) A compound of formula (I):



wherein

A is phenyl, naphthyl, indanyl, or tetrahydronaphthyl; each of X^1 and X^2 , independently, is O or S;

 Y^1 is $-CH_2$ -, -S-, $-N(R^a)$ -C(O)-O-, -O-C(O)- $N(R^a)$ -, $N(R^a)$ -C(O)- $N(R^b)$ -, -O-C(O)-O-, or a bond; each of R^a and R^b , independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

$$Y^2$$
 is -CH₂-, -O-, -S-, -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, O-C(O)-O-, or a bond;

L is a straight C_{3^-6} hydrocarbon chain containing at least one double bond, at least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being substituted with C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, halo, amino, nitro, cyano, C_{3-5} cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C_{1-4} alkylcarbonyloxy, C_{1-4} alkylcarbonyl, or formyl; and further being optionally interrupted by $-O_{1-4}$ alkylcarbonyl, or $-O_{1-4}$ alkylcarbonyl, or $-O_{1-4}$ alkylcarbonyl, or $-O_{1-4}$ alkylcarbonyl, or $-O_{1-4}$ alkylcarbonyl, and further being optionally interrupted by $-O_{1-4}$ alkylcarbonyl, alkylcarbonyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl,

Applicant: Hsuan-Yin Lan-Hargest et al.
Serial No.: 10/025,947
Filed: December 26, 2001
Page: 13 of 17

or haloalkyl;

or a salt thereof.

Attorney's Docket No.: 15128.0003 C1